



## Natural Heritage & Endangered Species Program

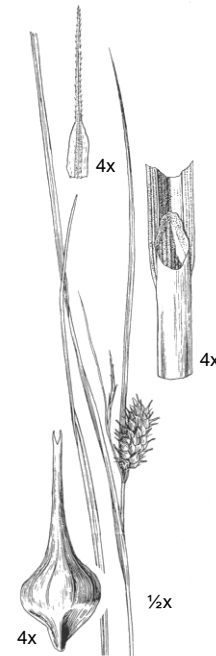
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[www.state.ma.us/dfwele/dfw/nhesp](http://www.state.ma.us/dfwele/dfw/nhesp)

**General Description:** Bailey's sedge, a member of the Sedge family (Cyperaceae), is a perennial, herbaceous, grass-like plant of freshwater wetlands and moist woodlands. It was named in honor of botanist Liberty Hyde Bailey (1858-1954). It occurs in dense clumps, often in association with other wetland sedges and grasses under a forest canopy with some filtered light.

**Aids to identification:** To positively identify Bailey's sedge and other members of the genus *Carex*, a technical manual should be consulted. Species in this genus have tiny, wind-pollinated flowers that are borne in spikes. Each flower is unisexual, and is closely subtended by small, flat scales that largely conceal the flowers. The staminate (*i.e.*, pollen bearing) flowers are subtended by a single scale. The pistillate (*i.e.*, ovule bearing) flowers are subtended by two scales, an outer flat scale ("pistillate scale") and an inner, sac-like scale, called a "perigynium", that encloses the flower, and later, the fruit.

## Bailey's Sedge *Carex baileyi*

State Status: **Endangered**  
Federal Status: None



Holmgren, Noel H. The Illustrated Companion to Gleason and Cronquist's Manual. NY Botanical Garden. 1998.



Distribution in Massachusetts  
1979-2003

Based on records in Natural Heritage Database

Bailey's sedge grows in clumps of many sharply-angled stems 8 – 28 inches (20 – 70 cm) tall with a purplish - red base. It belongs to a group of sedges called Section *Vesicariae*, which all have three-sided achenes topped by a bony, persistent style, and have at least slightly inflated perigynia. Bailey's sedge is unique within this group in its combination of long-awned pistillate scales and very long perigynium beaks (analogous to the neck of a vase), which exceeds the length of the true perigynium bodies (analogous to the bottom portion of a vase). Leaves are 4 - 8" (10 - 20 cm) long and quite narrow (0.1 – 0.2", 2 – 4 mm).

### Mature Perigynia Present:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form as these donations comprise a significant portion of our operating budget.

**Similar species:** Bailey's sedge closely resembles the much more common sallow sedge, *Carex lurida*, which is found in similar habitat. However, the beak length relative to the perigynium body length in the sallow sedge is shorter than that of Bailey's sedge; i.e., typically only half to almost as long as the body of the perigynium. The sallow sedge is also usually taller, up to 3.5 feet (1.1 m), with heavier, more robust stems and broader leaves, typically 0.2 – 0.3 inches (4 – 7 mm) wide. The pistillate spike in the sallow sedge is 0.6 – 0.8" (1.4 – 2.0 cm) in diameter, wider than that in Bailey's sedge.

**Habitat:** In general, this species is found in swampy areas, including sedge meadows, seeps, ditches, and shrub wetlands. Specific habitats in Massachusetts include a wet ditch, a wooded roadside, a rut in an abandoned woods road, a steep stream bank, a wooded swamp and a wet, shrubby woodland. Herbaceous species observed in association with Bailey's sedge include mannagrass (*Glyceria* spp.), New York fern (*Thelypteris noveboracensis*), rough-stemmed goldenrod (*Solidago rugosa*), whorled wood aster (*Eurybia divaricata*), turtlehead (*Chelone glabra*), Joe-Pye-Weed (*Eupatorium maculatum*) and rough bedstraw (*Galium asprellum*). Woody species observed with Bailey's sedge include sugar maple (*Acer saccharum*), black birch (*Betula lenta*), yellow birch (*Betula alleghaniensis*), balsam fir (*Abies balsamea*), red spruce (*Picea rubens*), witch hazel (*Hamamelis virginiana*) and several species of willow (*Salix* spp.).

**Range:** Bailey's sedge is restricted to the Appalachian region of North America. It extends from southern Ontario and southwestern Quebec southward to North Carolina and Tennessee in the south.

**Population status in Massachusetts:** Bailey's sedge is listed under the Massachusetts Endangered Species Act as Endangered. All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. Only nine current stations are known for Bailey's sedge in Massachusetts, all in the vicinity of the Hoosac Range in Berkshire County. Bailey's sedge is also listed as rare in the states of New Hampshire, Maine (historic), and Connecticut (believed extirpated).

**Management recommendations:** Little is known about the specific requirements of Bailey's sedge, but observations of existing populations suggest it may be tolerant of moderate disturbance. Nevertheless, drastic alteration of soils, hydrology or the forest canopy may have negative impacts on a population. Selective thinning of the forest canopy to prevent excess shading may improve the health of populations although the results of such manipulations should be monitored closely.